DMP
CORPORATION

August 22, 1990

Heritage Remediation/Engineering, Inc.
5656 Opportunity Drive
Toledo, OH 46312

Attn: Joe Ritchey

Subject: **NEW SAMPLE TREATABILITY - FORMER HEXCEL CHEMICALS SITE**

Dear Joe:

Attached is the initial DMP laboratory report for the treatability performed on the new well sample extracted 8/06/90.

As noted, the sample is easily treatable, although we did not determine much re composition beyond the fact that there is a slight oil emulsion present. That emulsion is breakable, but is slight enough so that no oil is freed up to the surface (instead it is pulled out with the settled solids).

When I gave you the initial results on the phone I didn't realize that the high iron number I mentioned was after treatment. As noted in the report, I'm sure this is due to the type of reagent chosen (e.g. sometimes a ferric- or ferrous based reagent will increase the Fe content). The treatment chemistry can be altered to reduce the iron content to prevent fouling of the remediation equipment.

Also as noted, whether or not this wastewater can be combined for treatment does not affect the type of DMP treatment equipment required. Of course, it does affect the type of holding, transfer, and treatment sequencing required.

In general, I foresee no problems dealing with the wastewaters developed so far from the Hexcel site. Hopefully there will be no more surprises. Please call me if you have any questions.

Sincerely,

DMP CORPORATION

Steven De See

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DMP LABORATORY REPORT 8/17/90 SAMPLE #1629

For: HERITAGE REMEDIATION/ENGINEERING, INC.
[Former Hexcel Industrial Chemicals Facility Remediation]

Sample Description: Grab sample from recently dug test well in FOC facility parking lot - sample extracted 8/6/90

Slightly yellowish, milky opaque liquid with solvent odor (not unlike the pit samples' odor)

Rough jar test treatability performed at NJ office shortly after extraction with Nalco Ultrion 7155 & 7157 reagents showed no effectiveness - sample shipped to DMP lab [Note: sample shipped in plastic bottles, which may slightly affect the oil and grease contaminant level.]

Initial Untreated Analysis:

pH	O&G
7.2	69 mg/l

Treatability: Added emulsion breaking, coagulating reagents and neutralized. Sample exhibited separation of solids which, when flocculated, settled rapidly. Supernate was clear, bright yellow color

Treated Sample Analysis:

pH	O&G
8.3	21 mg/l

Metals [mg/l]:

Cu	Ni	Cr	Zn	Cd	Pb	Fe	Al	Ag	Ca
0.53	0.36	<0.1	4.72	<0.01	<0.1	120	<1	<0.04	>100

Notes: Sample exhibited slight oil emulsion (greater than previous Building I Pit samples) . . . sample is easily treated, but source of color of supernate unknown . . . high Fe content probably due to choice of treatment reagent (i.e. added Fe) - can be adjusted with revised treatability to prevent Fe contamination of post treatment [ran out of sample, so further testing not possible] . . . actual composition and nature of wastewater sample unknown

Conclusion: As stated above, sample is easily treatable . . . further testing required to see if this wastewater can be combined with the Building I pit wastewater for treatment - if not, then segregated holding and alternate batch treatment required [DMP system can accommodate either treatment scenario]